

# Analysis of Factors that Influence Compliance with Health Protocols in Preventing Covid-19 Transmission in School-Age Children

**Elviani Tanditulak**

Puskesmas Masni, Manokwari, Papua Barat, Indonesia

\*Email: [elvianitanditulak@gmail.com](mailto:elvianitanditulak@gmail.com)

## ABSTRACT

The spread of COVID-19 in society could be accelerated by noncompliance with the application of health protocols. An attitude that arises in response to a rule that needs to be followed is called compliance. A number of factors, such as peer environment, motivation, and knowledge, affect adherence to health procedures. The purpose of this study is to identify the variables that affect school-age children's adherence to health precautions in order to stop the spread of COVID-19. This study employs a cross-sectional strategy and quantitative tools in an observational research design. Ninety-one kids in grades four, five, and six made up the study's population. The Accidental Sampling approach is used in the sample determination process. Questionnaires were used to gather data, and ordinal regression tests were used for bivariate analysis.

**Keywords:** Compliance, Knowledge, Motivation, Peer Group

## BACKGROUND

According to Sari et al. (2020), the World Health Organization (2020) declared that preventing COVID-19 is crucial for lowering the incidence of viral infections. The primary goal of this health strategy is to reduce the transmission of COVID-19 by wearing masks, washing hands with soap and water, or using hand sanitizer while keeping a safe distance (Sari et al., 2020). The implementation of this health protocol, according to Sii et al. (2020) in Imdatul Maulana (2021), applies to all societal levels, including children, adolescents, and adults. Despite the existence of government policies regarding health protocols, a significant number of people continue to disregard them. Putting the COVID-19 health plan into practice could lead to the spread of the virus further.

Children in school are among the groups most vulnerable to COVID-19. Data from the World Health Organization show that there are 13,234 positive cases of pediatric HIV globally, 5,437 survivors, and 2,435 fatalities. According to Piprim Basarah Yanuarso, Chair of the Indonesian Pediatrician Association (IDAI), statistics on COVID-19 cases in children in Indonesia indicates that the country is still experiencing a 1,000% spike in COVID-19 cases in children as compared to January 2022. Child Covid-19 cases A total of 676 instances were registered on January 24, 2022. The number of positive verified cases of Covid-19 in children is still rising at a fairly rapid rate. As of January 31, 2022, there were 2,775 confirmed instances of Covid-19 in children in Indonesia, and the number had climbed dramatically once more.

Based on the findings of a preliminary study survey that was conducted on February 7, 2022, on 91 students in grades 4, 5, and 6 at Bandar Lor 2 State Elementary School, researchers chose SDN 2 Bandar Lor as their research location. It was discovered that approximately 20

students had not followed health protocols. The findings of observations and interviews with multiple students indicate that certain kids play outside of the classroom without masks, don't wash their hands before and after leaving the room, and don't keep their distance from one another when they're playing. Because one pupil disregards the health regulations, some kids don't follow them.

The possibility for the spread of Covid-19 in society to increase arises from noncompliance with the implementation of health protocols. When a rule needs to be followed, people will respond with an attitude of compliance. Knowledge, motivation, and peer pressure are some of the variables that affect non-compliance with health standards. The first component is knowledge; in order to instill in children a sense of self- and environment-care, they need to be taught about COVID-19 and provided information about it as early as feasible. According to Almi (2020), campaigns that are more consistent and clear can raise public awareness and understanding while also promoting effective communication through a variety of media and techniques that cater to the diversity of society.

Motivation is another factor that might shape someone's obedience. Chotimah, Haryadi, and Nendyah (2019) suggest that an individual's motivation is a contributing element to their use of self-defense equipment. Any boost in motivation has the potential to promote the use of basic self-defense tools in behavior. Another element that affects a person's compliance with a task is motivation. For the purpose of lowering the number of Covid cases and halting the spread of illness, strong incentive might motivate people to constantly follow the Covid-19 health regimen. According to Pratiko (2011) in Wijaya F.D. (2022), people with poor motivation typically behave badly, particularly when it comes to preserving their own safety and health. The government must oversee the strictest enforcement of the regulations.

Research on the analysis of factors that influence compliance with health protocols in preventing Covid-19 transmission in school-aged children at SDN Bandar Lor 2 Kediri City is necessary in order to determine the factors that influence compliance with health protocols in preventing the transmission of Covid-19 in school-age children. Children's compliance is still a phenomenon that needs to be improved in order to improve behavior in breaking the chain of transmission of Covid-19.

## **METHODS**

This study employs cross-sectional methodology and quantitative techniques with an observational research design. Ninety-one children in grades 4, 5, and 6, made up the study's population. The Accidental Sampling approach is used in the sample determination process. There are two factors in this study: knowledge, motivation, and peer group environment are the independent variables, while compliance is the dependent variable. Questionnaires were used to gather data, and SPSS was used for bivariate analysis utilizing tests of ordinal regression.

## **RESULTS**

### **Respondent Characteristics**

Of the 83 respondents, 28 pupils (33.7%) belonged to class IV, 27 to class V (32.5%), and 28 to class VI (33.7%), according to the research findings. In the meanwhile, it is known that 49 students, or 59% of the total replies, were female.

### **Variable Characteristics**

26 students (31.3%) have low compliance with health protocols to prevent the transmission of COVID-19, 33 students (39.8%) have moderate compliance, and 24 students (28.9%) have high compliance, according to the variable compliance with health protocols to prevent the transmission of COVID-19.

The knowledge variable indicates that most students have good knowledge of the health protocols for preventing COVID-19, while 58 students (69.9%) have sufficient knowledge, 19 students (22.9%) have sufficient knowledge, and 6 students (7.2%) have insufficient knowledge.

According to the motivation variable, 37 students (44.6%) are very motivated to follow the health regimen for stopping the spread of COVID-19, while students with moderate motivation.

### Statistical Test Results

**Table 1.** Simultaneous Equations

Model Fitting Information				
Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	109,991			
Final	78,382	31,609	3	,000

Based on the table above, it is known that the significance value of 0.000 is smaller than alpha 0.05. This means that variables X1, X2, X3 together can influence variable Y.

**Table 2.** Size of Effect

Pseudo R-Square	
Nagelkerke	,465

It is evident from the above table that the independent variables knowledge, motivation, and peer group have a 46.5% impact on the dependent variable, compliance.

**Table 3.** Partial Test

	Estimate	Std. Error	Sig.	Keterangan
X1	1,143	,422	,007	Ada pengaruh
X2	,952	,398	,017	Ada pengaruh
X3	,862	,341	,011	Ada pengaruh

The variable X1 (Knowledge), as seen in the preceding table, has a significance value of 0.007. Compared to alpha ( $0.007 < 0.05$ ), this value is lower. This indicates that, school-age children's adherence to health precautions to stop the spread of COVID-19 is influenced in part by their level of knowledge.

The variable X2 (Motivation) has a significance value of 0.017, as can be seen from the above table. Compared to alpha ( $0.017 < 0.05$ ), this value is lower. This indicates that school-aged students at SDN Bandar Lor 2, Kediri City, are less likely to comply with health regulations when they are motivated.

The variable X3 (Peer Group) has a significance value of 0.011, as can be seen from the above table. Compared to alpha ( $0.011 < 0.05$ ), this value is lower. This indicates that peer groups had a partial impact on school-age children, adhering to health standards in order to stop the spread of COVID-19.

## DISCUSSION

### Identifying Knowledge Factors that Influence Compliance with Health Protocols to Prevent Covid-19 Transmission in Children

Research indicates that while most students have strong awareness of health guidelines for preventing COVID-19, 58 students (69.9%) have sufficient information, 19 students (22.9%) have sufficient knowledge, and 6 students (7.2%) have insufficient knowledge. The findings came from research questionnaires that were administered. Nineteen (34.6%) of the students with good knowledge had a high level of compliance with health protocols for preventing the spread of COVID-19, while six students with poor knowledge had a high level of compliance

with low health protocols for preventing COVID-19, according to the results of the cross-tabulation between knowledge and compliance.

The study supports that of Sambo et al. (2021), who found that 78 respondents had good knowledge prior to receiving education about health protocols, 44 (56.4%) had sufficient knowledge prior to receiving health protocol education, 21 had sufficient knowledge prior to receiving health protocol education (26.9%), and 3 had less knowledge prior to receiving health protocol education (16.7%).

Curiosity through the senses particularly the eyes and ears about certain items leads to knowledge. According to Donsu (2017), knowledge is a crucial component in the development of open behavior. The senses of hearing and sight are the primary ways in which people acquire knowledge (Notoatmodjo, 2012). Their understanding improves with the amount of information they get. You can get information.

Some students lack knowledge about health protocols because they don't understand how COVID-19 spreads, such as that it can be spread by humans and animals, that it can be spread through physical contact (shaking hands, etc.), that health protocols are a set of regulations issued by the government to ensure the safety of activities during the COVID-19 pandemic, or that COVID-19 disrupts daily activities.

These findings are consistent with what is observed in the field, which is that some students lack comprehension of any aspect of COVID-19. Researchers believe that education regarding COVID-19 is essential in light of these findings.

### **Identifying Motivational Factors that Influence Compliance with Health Protocols to Prevent Covid-19 Transmission in Children**

According to the above table, 37 students (44.6%) are highly motivated to follow the health protocol for preventing the spread of COVID-19, 40 students (48.0%) are moderately motivated, and some students (up to 6.2%) are still not very motivated to follow the health protocol for preventing the spread of COVID-19. The findings came from research questionnaires that were administered. Twelve students (50%) with strong motivation also had strong compliance with health protocols for preventing the transmission of COVID-19, according to the results of the cross-tabulation between knowledge and compliance. In contrast, students with weak motivation.

This study supports earlier research by Willytama (2021) that found that most respondents were moderately motivated to follow health regimens, with 35 (60.3%) and 23 (39.7%) having high motivation. In her 2013 book on psychology for nurses, Sunarya defines motivation as an individual's wants and desires that drive them to meet those needs and steer their behavior toward their goals. Anything that causes someone to respond, whether it be verbal, physical, or psychological, is considered motivation, according to Nancy Stevenson (2011). The process of movement, comprising motivating circumstances that emerge from within the person, the behavior that the situation produces, and the ultimate objective of the movement or action, is referred to as motivation.

Several factors in the students' questionnaire responses contributed to the lack of motivation in this study, such as the students' discomfort wearing masks in class, their inability to distance themselves from friends, and the parents of some students when they were being dropped off and picked up. Some students are compelled to wear masks because they adhere to school regulations, but parents do not always check to see if their kids are wearing them when they go to school.

Based on these findings, experts believe that parents' lack of encouragement and support to follow health precautions is the cause of students' lack of motivation. Therefore, collaboration between educators and parents is required.

According to research, 41 students (49.4%) have good criteria for peer influence about health procedures for limiting the spread of COVID-19, 30 students (36.1%) have adequate criteria,

and 12 students (14.5%) have bad criteria. The findings came from research questionnaires that were administered. Nine students (34.6%) who had a good level of friend influence had low compliance with Covid-19 prevention health protocols, while 14 students (58.3%) who had a good level of friend influence also had strong compliance with these protocols, according to the results of the cross-tabulation between knowledge and compliance with health protocols for preventing the transmission of Covid-19.

Peer groups are the second environment after family, according to Marliani (2016), and they provide a location to get information that isn't always available from family. A group of kids of the same age is called a peer group. The development of children is greatly aided by their friendships. Childhood friendships are undoubtedly of varying quality, with some lasting a long time and others ending quickly due to conflict.

They will benefit from a supportive friendship situation, and vice versa. According to the findings in the field, some respondents' criteria were insufficient since they disregarded health precautions, such as bringing acquaintances outside the house without masks and failing to wash their hands after doing.

### **Identifying Compliance with Health Protocols to Prevent Covid-19 Transmission to Children**

According to what is known, 26 pupils (31.3%) do not follow health precautions to avoid COVID-19, 33 students (39.8%) do so moderately, and 24 students (28.9%) do not comply at all. excellent adherence to health precautions to stop the spread of COVID-19. The findings came from research questionnaires that were administered.

62 (72.1%) respondents were classified as less compliant with health protocols, which include wearing masks when leaving class, washing your hands, keeping your distance, and avoiding crowds when you get home from school. These findings are consistent with research on health protocols when completing learning activities by Yuliza et al. (2021). Research is not the same as this research.

Kozier (2010 in Asmi Alfitra, 2017) defines compliance as personal conduct (e.g., taking medicine, following a diet, or changing one's lifestyle) that complies with treatment and medical advice. The degree of compliance might begin with following the strategy and paying attention to all of the recommendations. The degree to which a person's actions and efforts show adherence to the rules or suggestions made by medical professionals to aid in their rehabilitation is known as compliance behavior.

All age groups can be affected by the COVID-19 pandemic, although children are particularly susceptible. Children can be instilled with a feeling of accountability and concern for both the environment and themselves from a young age (Wardhani et al., 2020). The adoption of health precautions for kids is done in an attempt to shield them from the corona virus. Children have been taught to follow certain health protocols, such as washing their hands correctly, wearing masks, staying at home, and covering their mouths with tissues when coughing or sneezing. They have also been taught not to touch their mouth, eyes, or nose before washing their hands. Putting health procedures into practice can not only

### **Analyzing the Influence of Knowledge, Motivation and Peer Group Environment in Compliance with Health Protocols on Preventing Covid-19 Transmission**

The findings of this study indicate that the significant value of variable X1 (Knowledge) is 0.007. Compared to alpha ( $0.001 < 0.05$ ), this value is lower. This indicates that at SDN Bandar Lor 2, Kediri City, school-aged children's adherence to health protocols in preventing the spread of COVID-19 is influenced in part by their level of knowledge. This study is consistent with earlier studies by Sambo et al. (2021). The study's findings were examined using the Wilcoxon statistical test with a significance level of  $\alpha=0.05$ , yielding a value of  $p=0.0001$ . This indicates that health protocol education has an impact on students at

Frater Bakti Luhur Elementary School who are 10–12 years old and have knowledge about preventing the spread of COVID-19. Offering education has a significant.

The findings of this study indicate that the variable X2, or motivation, has a significance value of 0.017. Compared to alpha ( $0.017 < 0.05$ ), this value is lower. This indicates that school-aged students, are less likely to comply with health regulations when they are motivated.

This study is consistent with Irwansyah's (2021) findings. The study's findings demonstrated that the alpha value ( $\alpha=0.05$ ) was greater than the motivation for implementing the COVID-19 health protocol using the Chi-square test (0.000), indicating a relationship between extrinsic and intrinsic motivation. Additionally, this is consistent with Willytama's (2021) research and the Spearman Rho test results.

One of the things that influences someone's decision to use self-defense gear is motivation. The use of basic self-defense gear will increase with any increase in motivation. Even though respondents agree that they should try to avoid crowds, in practice they find it difficult to do so because urban areas are densely populated, and it is difficult to avoid crowds for any reason, including activities at school, public places, and other places where crowds cannot be avoided. This is the reason why respondents with lower compliance are not acting on their motivation.

The findings of this study indicate that the coefficient of significance for the variable X3 (Peer Group) is 0.011.

Due to their nearly identical ideas and behaviors, the peer environment (peer group) is a place where information is easily obtained because there are no knowledge or comprehension gaps. A person's behavior in their day-to-day activities is greatly influenced by their peer environment, or peer group. A person's quality of life, particularly their health, can be improved by being in a supportive peer group environment. In this study, abide by health precautions.

According to the findings, experts believe that having strong understanding will also result in good adherence to health protocols. The high level of motivation in the reaction can motivate positive behavior to raise their health by adhering to relevant health procedures. The atmosphere of peers.

## **CONCLUSION**

School-aged students made the following deductions based on information on how well health precautions work to stop the spread of COVID-19:

According to the study's findings, most students are well-informed about the health precautions against COVID-19, with 58 students (69.9%) having adequate knowledge, 19 students (22.9%) having sufficient knowledge, and 6 students (7.2%) having insufficient knowledge.

According to the study's findings, 37 students (44.6%) are highly motivated to follow the health protocol for preventing the spread of COVID-19, 40 students (48.0%) are moderately motivated, and some students are still not very motivated to follow the health protocol for preventing the spread of COVID-19.

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